

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-26. (Cancelled).

27. (Previously Presented) A method for using a hydrogen combustion heater, the heater comprising a passage for allowing hydrogen gas and air to flow therethrough; a first electric heating catalyst provided in said passage, said first catalyst being heated, when electricity is applied thereto, thereby starting a first combustion of a first mixture of said hydrogen gas and said air in said first catalyst; and a heat exchanger provided downstream of said first catalyst in said passage, said heat exchanger being adapted to transfer heat generated by said first combustion to a heating medium of said heat exchanger, said method comprising:

controlling a flow rate ratio of said air to said hydrogen gas, thereby limiting said first combustion to a mild oxidation that is defined as being free from firing of said hydrogen gas.

28. (Cancelled)

29. (Previously Presented) A method according to claim 27, wherein temperature of said first catalyst is limited to 500° C or lower.

30. (Cancelled)

31. (Previously Presented) A method of providing heat with a hydrogen combustion heater, the method comprising:

flowing hydrogen gas and air through a passage to a first electric heating catalyst provided in said passage;

applying electricity to said first catalyst to heat said first catalyst, thereby starting a first combustion of a first mixture of said hydrogen gas and said air in said first catalyst; and

transferring heat generated by said first combustion to a heating medium of a heat exchanger positioned downstream of said first catalyst in said passage.

32. (New) A method according to claim 27, wherein said flow rate ratio is controlled to be about 15.3:1.